

In The Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 1. (Currently Amended) A method for providing flotation to a wing of an agricultural
2 seeder relative to the ground, comprising the steps of:

3 a) providing a wheel-supported main frame adapted to be removably affixed to
4 a tractor for movement along the ground in a direction of travel;

5 b) providing a first elongated wing with an inner end and an opposing outer
6 end, the first wing having a longitudinal axis generally perpendicular to the
7 direction of travel and a center point along the longitudinal axis generally
8 equidistant from the inner and outer ends;

9 c) providing a first plurality of seeders affixed to the first wing and generally
10 regularly spaced along the longitudinal axis thereof;

11 d) providing a first elongated support arm pivotally affixed at one end to the
12 main frame and at the other end to the center point of the first wing;

13 e) providing a first hydraulic cylinder interconnecting directly at the first
14 support arm wing and directly at the main frame such that the first cylinder
15 can raise the first wing to a transport position and lower the first wing to a
16 working position in contact with the ground;

17 f) providing a second elongated wing with an inner end and an opposing outer
18 end, the second wing having a longitudinal axis generally perpendicular to
19 the direction of travel and a center point along the longitudinal axis
20 generally equidistant from the inner and outer ends, said inner ends of said
21 respective first and second wings being generally adjacent to each other in
22 the working position and form a generally continuous line across the width
23 of the seeder;

- 24 g) providing a second plurality of seeders affixed to the second wing and
25 generally regularly spaced along the longitudinal axis thereof;
- 26 h) providing a second elongated support arm pivotally affixed at one end to the
27 main frame opposite the point at which the first support arm is affixed and at
28 the other end to the center point of the second wing such that the first and
29 second wings are on opposite side of the main frame;
- 30 i) providing a second hydraulic cylinder interconnecting directly at the second
31 support arm wing and directly at the main frame such that the second
32 cylinder can raise the second wing to a transport position and lower the
33 second wing to a working position in contact with the ground;
- 34 j) lowering the first and second wings to the ground by activating the
35 respective first and second hydraulic cylinders; and
- 36 k) locking the first and second hydraulic cylinders in the lower position
37 whereby the first and second wings float about the point at which the first
38 and second support arms are pivotally affixed to the center points of the
39 respective first and second wings,
- 40 wherein the first and second wings are only attached to the wheel-supported main
41 frame by the first and second support arms, respectively, so that inner and outer
42 ends pivot freely only about the center point of each first and second wings.

1 2. Cancelled.

1 3. (Previously Presented) The method of claim 1, including the step of:

2 activating the first and second hydraulic cylinders at the same time to raise and
3 lower the first and second wings in substantial unison.

1 4. (Currently Amended) An agricultural seeder comprising:

2 a wheel-supported main frame with first and second opposing lateral sides and
3 adapted to be removably affixed to a tractor for movement along the ground in a direction
4 of travel;

5 first and second elongated wings each with an inner end and an opposing outer end
6 and each having a longitudinal axis generally perpendicular to the direction of travel and a
7 center point along the longitudinal axis generally equidistant from the respective inner and
8 outer ends;

9 a plurality of seeders affixed to the first and second wings and generally regularly
10 spaced along the longitudinal axes thereof;

11 a first elongated support arm pivotally affixed at one end to the first lateral side of
12 the main frame and at the other end to the center point of the first wing;

13 a second elongated support arm pivotally affixed at one end to the second lateral
14 side of the main frame and at the other end to the center point of the second wing;

15 a first hydraulic cylinder interconnecting the first wing and the main frame such that
16 activation of the first cylinder can raise the first wing to a transport position and lower the
17 first wing to a working position in contact with the ground;

18 a second hydraulic cylinder interconnecting the second wing and the main frame
19 such that activation of the second cylinder can raise the second wing to a transport position
20 and lower the second wing to a working position in contact with the ground, whereby
21 lowering and locking;

22 the respective inner ends of said wings being closely adjacent to each other when in
23 the working position, forming a generally continuous line across the width of said seeder;
24 and

25 both the first and second hydraulic cylinders having a lock thereon to hold the
26 respective cylinder in the working position whereby when in the working position, the
27 wings float relative to the ground,

28 wherein the first and second wings are only attached to the wheel-supported main frame by
29 the first and second support arms, respectively, so that inner and outer ends float only about
30 the center point of each first and second wings.

1 5. (Original) The seeder of claim 4, further including:

an hydraulic control system connected to the first and second hydraulic cylinders to manage the activation of the cylinders.

6. (Currently Amended) In an agricultural seeder having a main frame with first and second opposing lateral sides and first and second wings pivotably attached thereto and a hydraulic control system that pivots the wings between a raised transport position and a lowered operating position in contact with the ground, the improvement comprising:

the first and second wings, each with a longitudinal axis and a center point along their respective longitudinal axes, the first and second wings only are pivotably attached to respective lateral sides of the main frame by a structure including first and second substantially identical support arms each having a first end pivotably attached ~~to~~ directly at the main frame and an opposing second end pivotably attached directly at ~~to~~ the respective wing at the center point such that the wings float only about the center point pivotally attached directly at the second end of the support arm relative to the ground; and

each wing having an inner end and an outer end such that in the working position the respective longitudinal axes of the two are generally aligned, with the inner ends closely adjacent to each other thereby forming a generally continuous line along the width of the seeder.

7. (Original) The improvement of claim 6, further including:

a plurality of seeders affixed to the first and second wings and generally regularly spaced along the longitudinal axes thereof.

8. (Original) The improvement of claim 7, wherein:

the hydraulic control system includes a first hydraulic cylinder interconnecting the first wing and the main frame such that activation of the first cylinder can raise the first wing to a transport position and lower the first wing to a working position in contact with the ground.

9. (Original) The implement of claim 8, wherein:

2 the hydraulic control system includes a second hydraulic cylinder interconnecting
3 the second wing and the main frame such that activation of the second cylinder can raise
4 the second wing to a transport position and lower the second wing to a working position in
5 contact with the ground.

1 10. (Original) The improvement of claim 9, wherein:

2 both the first and second hydraulic cylinders have a lock thereon to hold the
3 respective cylinder in the working position whereby when in the working position, the
4 wings float relative to the ground.

1 11. (New) The method of claim 1, further including the step of:

2 moving the first and second elongated wings to the transport position wherein both
3 the first and second elongated wings are generally vertically aligned.

1 12. (New) The agricultural seeder as recited in claim 4, wherein the first and second
2 wings in the transport position are generally vertically aligned.

1 13. (New) The improvement of claim 6, wherein the first and second wings in the
2 transport position are generally vertically aligned.